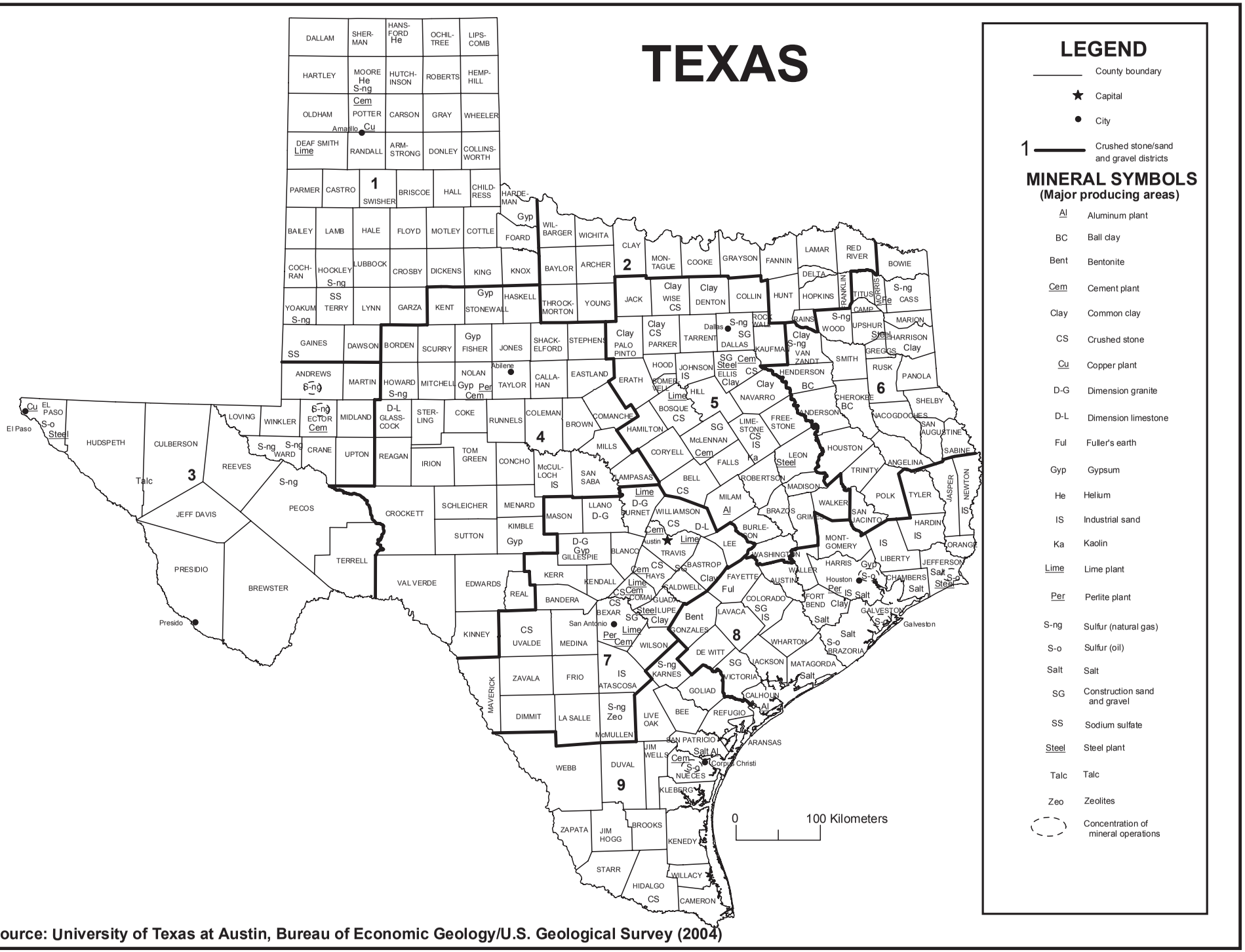
TEXAS
LEGEND
County boundary
Capital
City
Crushed stone/sand and gravel districts
MINERAL SYMBOLS
(Major producing areas)
Al Aluminum plant
BC Ball clay
Bent Bentonite
Cem Cement plant
Clay Common clay
CS Crushed stone
Cu Copper plant
D-G Dimension granite
D-L Dimension limestone
Ful Fuller's earth
Gyp Gypsum
He Helium
IS Industrial sand
Ka Kaolin
Lime Lime plant
Per Perlite plant
S-ng Sulfur (natural gas)
S-o Sulfur (oil)
Salt Salt
SG Construction sand and gravel
SS Sodium sulfate
Steel Steel plant
Talc Talc
Zeo Zeolites
Concentration of mineral operations
0
100 Kilometers
Amarillo
Abilene
Dallas
Austin
San Antonio
Corpus Christi
Houston
Galveston
El Paso
Presido
Source: University of Texas at Austin, Bureau of Economic Geology/U.S. Geological Survey (2004)

THE MINERAL INDUSTRY OF TEXAS

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the University of Texas at Austin, Bureau of Economic Geology, for collecting information on all nonfuel minerals.

In 2004, Texas nonfuel raw mineral production was valued[1] at $2.29 billion, based upon annual U.S. Geological Survey (USGS) data. This was a 4.6% increase from the State's total nonfuel mineral value for 2003,[2] which followed a 5.3% increase from 2002. Texas was fifth among the 50 States (third in 2003) in total nonfuel mineral production value and accounted for 5% of the U.S. total value.

In 2004, about 91% of Texas' nonfuel mineral value resulted from the production of the State's top five industrial minerals, which are, in descending order of value—cement (portland and masonry), crushed stone, construction sand and gravel, salt, and lime. Cement alone accounted for nearly 37% of the State's total nonfuel mineral value. Even though there was only a relatively small increase in production, cement led all other nonfuel mineral commodities with an increase in value of $55 million. Industrial sand and gravel production rose 45%, its value up more than $27 million from 2003. The next highest increase in value came from the construction sand and gravel industry. Even though production was down about 5%, the commodity's value was up $11 million. Smaller yet significant increases in value also took place in crude gypsum (up $6.5 million), lime (up $5 million), and salt (up $2 million). The largest decrease in value was a $132 million drop in the value of crushed stone, which had a 3.2% drop in production (table 1). Significantly smaller decreases in value took place in ball clay, brucite, and dimension stone.

In 2003, Texas' rise in value was led by increases in the values of crushed stone, up $67 million, and industrial sand and gravel, up nearly $20 million. To follow were increases in the values of salt, up $13 million, construction sand and gravel and lime, each up $12 million, portland cement, up $7 million, and dimension stone, up $4.2 million (table 1). Although the production and value of crude helium had a significant increase, Grade–A helium production and value decreased, substantially.

In 2004, Texas continued to be first in rank among producing States in the quantity of crushed stone produced; second in the production of portland cement, construction sand and gravel, salt, crude helium (of two producing States), common clays, ball clay, and talc (listed in descending order of value); and seventh in masonry cement. Also the State was a significant producer of gemstones. While the State rose in rank to first from second in the production of brucite (of two producing States), to second from third in industrial sand and gravel, and to second from fifth in crude gypsum, it decreased to third from second in zeolites and to seventh from fifth in dimension stone. The Texas metal industry produced copper, primary aluminum, raw steel, and smaller amounts of other metals. Sources of plant feed included ores, blister and anode copper, and scrap metal acquired from other domestic or foreign sources. In 2004, the State rose to third from fourth in rank in primary aluminum production and was the leading producer of electrolytically refined copper. Texas also remained one of the Nation's leading raw steel-producing States (precise rank withheld owing to proprietary data of producers in other States). Production rose 5.6% in 2004 to 3.95 million metric tons of raw steel, as reported by the American Iron and Steel Institute (2005, p. 76).

The following narrative information was provided by the Texas Bureau of Economic Geology[3] (BEG). In 2004, the mineral industry remained a significant and diverse component of the Texas economy with most of the State's nonfuel minerals achieving increases in production and value from 2003. Annual job growth in natural resources and mining, as reported by the Texas Workforce Commission (2005§[4]), increased 2.5% from December 2003 through December 2004. This number includes mining and support services for nonfuel minerals as well as oil and gas extraction and coal mining. Steady though modest gains were made in the growth of the construction industry employment. The Commission reported an increase of about 1.2% in the number of jobs Statewide in 2004 more than the 0.5% increase of 2003.

Commodity Review

Industrial Minerals

Common Clays.—Hanson PLC acquired U.S. brick manufacturer Athens Brick Co. Inc. from Texas Industries, Inc. of Dallas, TX, for about $40 million in cash (on a debt-free basis and subject to usual post-closing adjustments). Athens Brick continued serving Texas and adjoining States from two plants in central northeastern Texas (one plant in Mineral Wells, Palo Pinto County, west of Fort Worth, and the other plant in Athens, Henderson County, southeast of Dallas) and a third plant near the Texas border in northwestern Louisiana (Mooringsport). These facilities produced facing brick used in residential and commercial construction and have a

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2004 USGS mineral production data published in this chapter are those available as of December 2005. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—also can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

[2]Values, percentage calculations, and rankings for 2003 may differ from the Minerals Yearbook, Area Reports: Domestic 2003, Volume II, owing to the revision of preliminary 2003 to final 2003 data. Data and rankings for 2004 are considered to be final and are not likely to change significantly.

[3]Sigrid Clift, Research Associate, Texas Bureau of Economic Geology, and J. Richard Kyle, Professor, both of the Department of Geological Sciences, John A. and Katherine G. Jackson School of Geosciences, University of Texas at Austin, coauthored the text of the State mineral industry information provided by the Texas Bureau of Economic Geology

[4]A reference that includes a section mark (§) is found in the Internet Reference Cited section.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN TEXAS[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2002		2003		2004	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	294	36,000 [e]	307	36,100 [e]	319	38,000 [e]
Portland	10,500	740,000 [e]	11,100	747,000 [e]	11,200	800,000 [e]
Clays:						
Common	2,160	21,200	2,110	8,890	2,160	8,890
Fuller's earth	W	W	27	2,400	W	W
Kaolin	39	8,420	33	7,150	W	W
Gemstones	NA	12	NA	201	NA	201
Gypsum, crude	2,060	13,400	1,810	12,300	2,450	18,800
Lime	1,530	98,400	1,630	110,000	1,630	115,000
Salt	9,100	103,000	9,640	116,000	9,870	118,000
Sand and gravel:						
Construction	82,600	413,000	86,200	425,000	81,700	436,000
Industrial	1,670	62,200	1,930	81,700	2,790	109,000
Stone:						
Crushed	109,000 [r]	528,000 [r]	126,000	595,000	122,000	582,000
Dimension	65	12,200	87	16,400	64	15,200
Talc, crude	W	W	246	W	258	W
Combined values of brucite, clays (ball, bentonite), helium, zeolites (2004), and values indicated by symbol W	XX	40,900	XX	33,300	XX	46,300
Total	XX	2,080,000 [r]	XX	2,190,000	XX	2,290,000

[e]Estimated. [r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined values" data.
XX Not applicable.

[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

[2]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
TEXAS: CRUSHED STONE SOLD OR USED, BY KIND[1]

Kind	2002				2003				2004			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone [2]	118 r	104,000 r	$504,000 r	$4.85 r	111	121,000	$567,000	$4.69	114	116,000	$552,000	$4.76
Dolomite	1	W	W	4.34	1	W	W	3.99	1	W	W	4.33
Calcareous Marl	2	W	W	3.96	2	W	W	4.07	2	W	W	4.07
Marble	7	W	W	18.79 r	7	W	W	20.82	3	W	W	16.89
Shell	1	W	W	26.46	(3)	W	W	28.66	(3)	W	W	28.67
Granite	2	W	W	11.86 r	1	W	W	####	1	W	W	####
Traprock	1	W	W	8.61	1	W	W	7.93	1	W	W	8.08
Sandstone and quartzite	5	652 r	4,230 r	6.48 r	4	749	4,190	5.59	4	1,030	5,290	5.15
Volcanic cinder	2	W	W	4.36	--	--	--	--	--	--	--	--
Miscellaneous stone	9	1,850	7,370	4.00	8	1,930	9,860	5.10	9	2,220	10,800	4.85
Total or average	XX	109,000 r	528,000 r	4.86 r	XX	126,000	595,000	4.72	XX	122,000	582,000	4.79

rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total or average." XX Not applicable.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes limestone-dolomite reported with no distinction between the two.
[3]Sales/distribution yards.

TABLE 3a

TEXAS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2003, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1½ inch):			
Riprap and jetty stone	169	$1,410	$8.34
Filter stone	899	9,610	10.69
Other coarse aggregate	739	1,850	2.50
Total or average	1,810	12,900	7.12
Coarse aggregate, graded:			
Concrete aggregate, coarse	8,590	61,400	7.14
Bituminous aggregate, coarse	1,810	14,200	7.81
Bituminous surface-treatment aggregate	416	3,960	9.52
Railroad ballast	W	W	4.71
Other graded coarse aggregate	8,730	38,300	4.38
Total or average	19,600	118,000	6.02
Fine aggregate (-⅜ inch):			
Stone sand, concrete	1,310	8,550	6.51
Stone sand, bituminous mix or seal	286	1,470	5.15
Screening, undesignated	247	1,520	6.15
Other fine aggregate	5180	19,600	3.78
Total or average	7,030	31,100	4.43
Coarse and fine aggregate:			
Graded road base or subbase	18,100	65,400	3.62
Unpaved road surfacing	(2)	(2)	3.32
Terrazzo and exposed aggregate	(2)	(2)	126.89
Crusher run or fill or waste	342	1,410	4.12
Roofing granules	(2)	(2)	10.01
Other coarse and fine aggregates	5,280	32,700	6.19
Total or average	23,700	99,500	4.20
Other construction materials	26	121	4.65
Agricultural:			
Agricultural limestone	87	1,390	15.95
Poultry grit and mineral food	165	2,000	12.12
Other agricultural uses	76	739	9.72
Total or average	328	4,130	12.58
Chemical and metallurgical:			
Cement manufacture	13,200	36,500	2.77
Lime manufacture	2,330	8,670	3.73
Sulfur oxide removal	(3)	(3)	11.69
Special:			
Asphalt fillers or extenders	(3)	(3)	11.63
Other fillers or extenders	830	9,460	11.39
Other miscellaneous uses and other specified uses not listed	37	212	5.73
Unspecified:[4]			
Reported	49,300	233,000	4.73
Estimated	7,500	35,000	4.71
Total or average	56,800	268,000	4.73
Grand total or average	126,000	595,000	4.72

W Withheld to avoid disclosing company proprietary data; included with "Other graded coarse aggregates."

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Withheld to avoid disclosing company proprietary data, included with "Other coarse and fine aggregates."

[3]Withheld to avoid disclosing company proprietary data; included in "Grand total or average."

[4]Reported and estimated production without a breakdown by end use.

TABLE 3b

TEXAS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2004, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1½ inch):			
Macadam	W	W	$13.81
Riprap and jetty stone	254	$1,730	6.83
Filter stone	268	1,610	5.99
Other coarse aggregates	1,030	6,720	6.54
Total or average	1,550	10,100	6.49
Coarse aggregate, graded:			
Concrete aggregate, coarse	8,640	63,900	7.40
Bituminous aggregate, coarse	1,660	13,200	7.98
Bituminous surface-treatment aggregate	188	1,990	10.57
Railroad ballast	(2)	(2)	6.81
Other graded coarse aggregates	3,750	30,600	8.17
Total or average	14,200	110,000	7.71
Fine aggregate (-⅜ inch):			
Stone sand, concrete	1,770	12,000	6.77
Stone sand, bituminous mix or seal	130	881	6.78
Screening, undesignated	132	823	6.23
Other fine aggregates	3,940	15,900	4.02
Total or average	5,980	29,600	4.95
Coarse and fine aggregate:			
Graded road base or subbase	9,750	39,500	4.05
Terrazzo and exposed aggregate	(3)	(3)	71.58
Crusher run or fill or waste	549	2,610	4.76
Other coarse and fine aggregates	10,300	49,100	4.79
Total or average	20,600	91,200	4.44
Other construction materials	80	264	3.30
Agricultural:			
Agricultural limestone	261	1,650	6.32
Poultry grit and mineral food	(4)	(4)	17.94
Other agricultural uses	143	1,960	13.71
Total or average	404	3,610	8.94
Chemical and metallurgical:			
Cement manufacture	10,700	33,600	3.13
Lime manufacture	(5)	(5)	3.44
Special:			
Asphalt fillers or extenders	(5)	(5)	11.34
Other fillers or extenders	393	2,620	6.65
Other miscellaneous uses and other specified uses not listed	22	124	5.64
Unspecified:[6]			
Reported	53,600	239,000	4.45
Estimated	12,000	51,000	4.29
Total or average	65,600	290,000	4.42
Grand total or average	122,000	582,000	4.79

W Withheld to avoid disclosing company proprietary data; included with "Other coarse aggregates."

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Withheld to avoid disclosing company proprietary data; included with "Other graded coarse aggregates."

[3]Withheld to avoid disclosing company proprietary data; included with "Other graded coarse and fine aggregates."

[4]Withheld to avoid disclosing company proprietary data; included with "Other agricultural uses."

[5]Withheld to avoid disclosing company proprietary data; included in "Grand total or average."

[6]Reported and estimated production without a breakdown by end use.

TABLE 4a

TEXAS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2003, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		District 4	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch)[2]	--	--	W	W	--	--	W	W
Coarse aggregate, graded[3]	W	W	W	W	--	--	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	--	--	W	W
Coarse and fine aggregates[5]	W	W	362	1,480	W	W	W	W
Other construction materials	--	--	--	--	--	--	--	--
Agricultural[6]	--	--	W	W	--	--	--	--
Chemical and metallurgical[7]	--	--	--	--	W	W	W	W
Special[8]	--	--	--	--	--	--	--	--
Other miscellaneous uses	--	--	--	--	--	--	--	--
Unspecified:[9]								
Reported	--	--	166	824	3,360	16,400	--	--
Estimated	220	890	--	--	550	2,600	320	1,600
Total	710	3,830	910	4,700	4,680	21,900	3,680	21,300

	District 5		District 6		District 7		District 8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch)[2]	W	W	W	W	W	W	W	W
Coarse aggregate, graded[3]	11,900	57,900	--	--	4,750	32,100	W	W
Fine aggregate (-⅜ inch)[4]	W	W	--	--	1,660	10,900	--	--
Coarse and fine aggregates[5]	10,100	38,600	W	W	9,500	37,600	W	W
Other construction materials	--	--	--	--	26	121	--	--
Agricultural[6]	W	W	--	--	--	--	W	W
Chemical and metallurgical[7]	9,800	27,900	--	--	4,280	11,600	W	W
Special[8]	W	W	--	--	W	W	--	--
Other miscellaneous uses	9	52	--	--	28	161	--	--
Unspecified:[9]								
Reported	7,110	35,300	--	--	31,400	147,000	4,580	20,400
Estimated	4,900	22,000	30	140	1,300	7,300	--	--
Total	50,800	217,000	206	1,260	53,600	254,000	6,510	45,600

	District 9		Unspecified districts	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch)[2]	--	--	--	--
Coarse aggregate, graded[3]	W	W	18	236
Fine aggregate (-⅜ inch)[4]	W	W	--	--
Coarse and fine aggregate[5]	W	W	387	3,500
Other construction materials	--	--	--	--
Agricultural[6]	--	--	--	--
Chemical and metallurgical[7]	--	--	--	--
Special[8]	--	--	--	--
Other miscellaneous uses	--	--	--	--
Unspecified:[9]				
Reported	2,710	12,900	--	--
Estimated	130	510	--	--
Total	4,590	21,900	405	3,730

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes filter stone, riprap and jetty stone, and other coarse aggregate.

[3]Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.

[4]Includes screening (undesignated), stone sand (bituminous mix or seal), stone sand (concrete), and other fine aggregates.

[5]Includes crusher run (select material or fill), graded road base or subbase, terrazzo and exposed aggregate, unpaved road surfacing, roofing granules, and other coarse and fine aggregates.

[6]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[7]Includes cement manufacture, lime manufacture, and sulfur oxide removal.

[8]Includes asphalt fillers or extenders and other fillers or extenders.

[9]Reported and estimated production without a breakdown by end use.

TABLE 4b

TEXAS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2004, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		District 4	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch)[2]	W	W	--	--	--	--	W	W
Coarse aggregate, graded[3]	W	W	W	W	W	W	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	W	W	W	W
Coarse and fine aggregates[5]	W	W	W	W	W	W	1,130	5,010
Other construction materials	--	--	--	--	--	--	--	--
Agricultural[6]	--	--	W	W	--	--	--	--
Chemical and metallurgical[7]	--	--	--	--	W	W	W	W
Special[8]	--	--	--	--	--	--	--	--
Other miscellaneous uses	--	--	--	--	--	--	--	--
Unspecified:[9]								
Reported	--	--	173	860	3,230	15,600	--	--
Estimated	420	1,700	--	--	670	3,300	98	510
Total	748	3,760	610	2,770	4,580	21,400	3,740	21,100

	District 5		District 6		District 7		District 8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch)[2]	W	W	W	W	1,400	8,960	W	W
Coarse aggregate, graded[3]	4,840	34,600	--	--	6,070	39,800	W	W
Fine aggregate (-⅜ inch)[4]	3,130	12,300	--	--	2,360	14,200	W	W
Coarse and fine aggregates[5]	2,150	11,100	W	W	14,100	54,000	W	W
Other construction materials	--	--	--	--	80	264	--	--
Agricultural[6]	W	W	--	--	W	W	W	W
Chemical and metallurgical[7]	6,890	22,800	--	--	W	W	--	--
Special[8]	W	W	--	--	W	W	--	--
Other miscellaneous uses	22	124	--	--	--	--	--	--
Unspecified:[9]								
Reported	18,300	70,100	--	--	24,300	117,000	4,780	21,300
Estimated	9,300	36,000	34	130	1,300	9,000	--	--
Total	45,500	197,000	238	1,170	54,300	258,000	6,850	50,200

	District 9		Unspecified districts	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch)[2]	--	--	--	--
Coarse aggregate, graded[3]	W	W	33	493
Fine aggregate (-⅜ inch)[4]	W	W	--	--
Coarse and fine aggregate[5]	W	W	280	2,620
Other construction materials	--	--	--	--
Agricultural[6]	--	--	--	--
Chemical and metallurgical[7]	--	--	--	--
Special[8]	--	--	--	--
Other miscellaneous uses	--	--	--	--
Unspecified:[9]				
Reported	2,830	13,500	--	--
Estimated	150	580	--	--
Total	4,810	24,000	313	3,120

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregate.

[3]Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.

[4]Includes screening (undesignated), stone sand (bituminous mix or seal), stone sand (concrete), and other fine aggregates.

[5]Includes crusher run or fill or waste, graded road base or subbase, terrazzo and exposed aggregate, and other coarse and fine aggregates.

[6]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[7]Includes cement and lime manufacture.

[8]Includes asphalt fillers or extenders and other fillers or extenders.

[9]Reported and estimated production without a breakdown by end use.

TABLE 5a

TEXAS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2003, BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	32,100	$184,000	$5.74
Plaster and gunite sands	324	2,420	7.47
Concrete products (blocks, bricks, pipe, decorative, etc.)	512	1,800	3.52
Asphaltic concrete aggregates and other bituminous mixtures	791	5,330	6.74
Road base and coverings	3,130	14,500	4.62
Road stabilization (cement)	1,210	8,140	6.72
Fill	10,700	26,400	2.47
Snow and ice control	12	37	3.08
Other miscellaneous uses	429	1,190	2.78
Unspecified:[2]			
Reported	10,800	53,800	4.98
Estimated	26,000	130,000	4.85
Total or average	86,200	425,000	4.93

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Reported and estimated production without a breakdown by end use.

TABLE 5b

TEXAS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2004, BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	32,200	$199,000	$6.19
Plaster and gunite sands	449	3,990	8.90
Concrete products (blocks, bricks, pipe, decorative, etc.)	202	1,780	8.78
Asphaltic concrete aggregates and other bituminous mixtures	1,220	7,350	6.02
Road base and coverings	3,210	15,100	4.69
Road and other stabilization (cement)	1,460	8,430	5.78
Fill	6,740	18,700	2.78
Other miscellaneous uses[2]	207	1,050	5.06
Unspecified:[3]			
Reported	14,200	74,200	5.22
Estimated	22,000	110,000	4.88
Total or average	81,700	436,000	5.34

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes filtration, roofing granules, and snow and ice control.

[3]Reported and estimated production without a breakdown by end use.

TABLE 6a

TEXAS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2003, BY USE AND DISTRICT[1,2]

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 3		Districts 2 and 6		Districts 4 and 7	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products [3]	975	8,820	W	W	3,480	20,300
Asphaltic concrete aggregates and road base materials [4]	509	3,890	W	W	328	1,480
Fill	230	1,290	102	150	870	2,620
Snow and ice control	1	7	W	W	--	--
Other miscellaneous uses	--	--	1,820	9,670	--	--
Unspecified:[5]						
Reported	1,550	7,730	148	688	4,550	25,600
Estimated	5,100	25,000	2,700	15,000	3,700	18,000
Total	8,350	46,500	4,730	25,400	12,900	68,000

	District 5		District 8		District 9	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products [3]	9,780	62,000	13,300	64,300	W	W
Asphaltic concrete aggregates and road base materials [4]	1,300	7,240	2,270	11,500	W	W
Fill	1,450	3,370	8,010	18,900	--	--
Snow and ice control	W	W	27	111	--	--
Other miscellaneous uses	370	889	54	291	4,350	27,700
Unspecified:[5]						
Reported	1,050	2,720	3,240	15,700	258	1,330
Estimated	5,500	25,000	6,300	30,000	2,900	15,000
Total	19,500	101,000	33,200	141,000	7,530	43,400

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Districts 1 and 3, 2 and 6, and 4 and 7 are combined to avoid disclosing company proprietary data.

[3]Includes plaster and gunite sands.

[4]Includes road and other stabilization (cement).

[5]Reported and estimated production without a breakdown by end use.

TABLE 6b

TEXAS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2004, BY USE AND DISTRICT[1,2]

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 3		Districts 2 and 5		Districts 4 and 7	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates (including concrete sand)	794	6,290	7,180	43,200	4,200	33,500
Concrete products (blocks, bricks, pipe, decorative, etc.)[3]	W	W	233	1,990	128	1,450
Asphaltic concrete aggregates and other bituminous mixtures	W	W	426	2,950	W	W
Road base and coverings[4]	169	1,500	1,360	8,590	W	W
Fill	114	398	983	2,290	1,300	7,510
Other miscellaneous uses[5]	78	855	33	331	918	2,930
Unspecified:[6]						
Reported	1,520	7,540	4,930	25,500	3,810	22,000
Estimated	2,800	14,000	6,300	33,000	2,900	15,000
Total	5,500	30,700	21,500	118,000	13,300	82,700

	Districts 6 and 8		District 9		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates (including concrete sand)	13,200	71,700	3,740	25,800	3,070	18,700
Concrete products (blocks, bricks, pipe, decorative, etc.)[3]	52	206	W	W	--	--
Asphaltic concrete aggregates and other bituminous mixtures	W	W	W	W	--	--
Road base and coverings[4]	2,300	11,000	W	W	--	--
Fill	4,330	8,520	--	--	5	13
Other miscellaneous uses[5]	420	1,470	623	4,340	--	--
Unspecified:[6]						
Reported	3,620	17,400	218	1,090	131	641
Estimated	7,300	32,000	2,400	12,000	--	--
Total	31,200	142,000	6,990	43,200	3,200	19,300

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Districts 1 and 3, 2 and 5, 4 and 7, and 6 and 8 are combined to avoid disclosing company proprietary data.

[3]Includes plaster and gunite sands.

[4]Includes road and other stabilization (cement).

[5]Includes filtration, roofing granules, and snow and ice control.

[6]Reported and estimated production without a breakdown by end use.

combined capacity of 90 million bricks per year. Texas Industries, Inc. completed an initial plan by which it would begin to spin off its wholly owned steel business.

Crushed Stone.—Hanson Aggregates North America reported its completion in 2004 of a major production facility, the Perch Hill Plant, which the company claimed to be one of the largest crushed stone producing plants in the State (Jerry McCalip, company official, Hanson Aggregates North America, Dallas, TX, oral commun., March 25, 2005).

Talc.—Zemex Industrial Minerals, Inc. reported that the Zemex Sonority Pioneer Plant outside of Van Horn was in full production during 2004. The company mined talc from three different pits to use in blending operations to produce products for its various customer specifications. Planned activities include an aggressive ore characterization drilling, sampling, and associated lab analysis program. This program was scheduled to start during the summer of 2005 and continue on a year-by-year basis (Steve Cox, company official, Zemex Industrial Minerals, Inc., Atlanta, GA, oral commun., March 25, 2005).

Legislation and Government Activities

The Texas Governor's Advisory Committee on Rock Crushers recommended tighter control over aggregate mining activities, especially to include reclamation language in connection with bonded mine sites. The creation of water districts in the State continued to introduce new restrictions to mine development. In the 2005 legislative session, SB1354 was introduced to address protection of extraordinary streams and included a pilot program designed for the Brazos River, which begins in Young County, west of Possum Kingdom Lake in northern central Texas.

Reference Cited

American Iron and Steel Institute, 2005, Pig iron and raw steel production-Final 2004, AIS-7, subsection of Annual statistical report 2004: Washington, DC, American Iron and Steel Institute, 130 p.

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